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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,652	10/30/2003	Vincent Cedric Colnot	P1986	7794

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2434	

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05/14/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/696,652	COLNOT, VINCENT CEDRIC	
	Examiner	Art Unit	
	JASON K. GEE	2434	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04/30/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 14-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 14-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is response to communication: RCE filed on 04/30/2009.

2. Claims 1-7 and 14-23 are currently pending in this application. Claims 1 and 14 are independent claims. Claims 8-13 have been cancelled.

3. No IDS was received for this application.

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/30/2009 has been entered.

Response to Arguments

5. Applicant's arguments filed 04/30/2009 have been fully considered but they are moot in view of new ground(s) of rejection

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-7 are rejected under 35 U.S.C. 101 based on Supreme Court precedent and recent Federal Circuit decisions, a 35 U.S.C § 101 process must (1) be tied to a particular machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the particular machine to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps are not tied to a particular machine and do not perform a transformation. For example, the applicants do not claim what machine is performing steps a-e. Further, as seen in D, the steps seem to be performed by a human.

The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 USC 101. *Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.*

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 and 14-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claims 1-7 and 14-23, the claim recites a smart card having a convention ISO 7816 six pad array. However, this is not provided in the applicant's specification. The specification only claims a smart card which is compliant with ISO 7816 standards which can be used in existing card readers. Further, the claims recite producing an identification sequence on one otherwise unused pad. This is not described in the applicant's specification. Also, the claim recites connecting to an IVR server by dialing an appropriate number. This is also not taught by the applicant's specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-7 and 14-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-7 and 14-23, the independent claims recite producing an identification sequence on one otherwise unused pad. It is unclear what the applicant means by an otherwise unused pad, as it is not even describe din the specification

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landry et al US Patent No. 6,687,350 (hereinafter Landry), in view of Hohle US Patent No. 6,199,762 (hereinafter Hohle, and further in view of Barber US Patent No. 3,811,012 (hereinafter Barber).

As per claim 1, Landry teaches a method for a second operation of authenticating a user and securing an online transaction over a telephone, comprising: providing a connector connecting a smart card to a telephone (Figure 2 item 30, with the analogue front-end unit; col. 5 lines 20-35); transmitting from the smart card at least an identification sequence for the user to an IRV server connected to a telephone line in the form of a modulated signal (col. 10 lines 25-30; col. 5 lines 1-22; col. 6 lines 5-29; Figures 2,3; also col. 5 lines 13-35, wherein the signal is modulated as it goes through

modem 26); demodulating the identification sequence at the IVR server (It is inherent that the signal is demodulated, as a modulated signal must be demodulated in order for the data to be useful and processed; also occurs at the IVR server (col. 5 lines 1-10)); and authenticating the user and the transaction at an application server receiving the demodulated identification sequence from the IVR server over a communication network wherein data processing required for generating, transmitting, and authenticating the user occur without data processing assistance from the connector (col. 8 line 45-65; col. 10 lines 1-35; Figure 5, and abstract, wherein the application server controls the functions of the smart card reader).

As per claim 1, Landry teaches a method for authenticating a user and securing an online transaction over a telephone comprising: a) connecting a smart card which comprises circuitry to produce a modulated voltage signal in a manner to produce an identification sequence stored on the card and associated with a specific person (col. 10 lines 25-30; col. 5 lines 1-22; col. 6 lines 5-29; Figures 2,3; also col. 5 lines 13-35), b) connecting a telephone hand set to the same telephone line (Figures 2 and 3); c) connecting to an interactive voice response (IVR) serve on the telephone network by dialing an appropriate number on the handset (col. 5 lines 1-10); d) entering a pin number though the telephone handset by the specific person (col. 10 lines 15-45); and e) demodulating the identification sequence at the IVR and using the demodulated information sequence and the PIN to communicate with an authentication server and authentication the person (col. 8 line 45-65; col. 10 lines 1-35; Figure 5, and abstract).

However, at the time of the invention, Landry does not specifically teach a smart card which is complaint with ISO 7816 standards. However, as taught in the applicant's specification and also clamed, the ISO 7816 complaint smart cards are convention. For further reference, see Hohle at col. 4 lines 10-27.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include smart cards taht are compliant with the ISo 7816 standard. As seen, the ISO 7816 is a standard, and it would be beneficial to adopt to such a well known standard as it makes it more complaint to different systems so it will be more efficient also.

However, at the time of the invention, Landry as modified by Hohle does not explicitly teach wherein a switch is used to send out a modulated signal. Having, using switches to activate certain sequences are well known in circuit design. Whether the switch connects the circuit to a ground or a voltage source to activate or deactivate a certfain function is a mere design choice. However, utilizing switches in circuits is well known in the art. For example, this is taught by Barber, such as in col. 1 line 55 to col. 2 line 29).

At the time of the invention, it would have been obvious to utilize circuit design to activate sending signals through a telephony line. One of ordinary skill in the art would have been motivated to perform such an addition to be able to control when signals are sent. Having this would allow more user control.

Claim 14 is rejected using the same basis of arguments used to reject claim 1 above. A card reader connected to a telephone is taught throughout the reference, such as in Landry Figure 1a and 1b. It is inherent that a telephone is connected to a telephone line. An IVR server connected to the telephone line is taught throughout the reference, such as in Figures 1, 2, 3, and col. 5 lines 1-12.

As per claim 23, Landry teaches wherein the card reader is further integrated into the telephone handset (col. 2 lines 45-68).

11. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landry, Hohle, and Barber as applied above ("Landry combination"), and further in view of Chang et al. US Patent No. 6,715,082 (hereinafter Chang).

As per claim 2, Landry teaches a credit card number in col. 1 lines 25-29, which is a unique number. However, the Landry combination does not explicitly teach the use of one time keys on a smart card. These are well known in the art, as can be seen in Chang col. 2 lines10-25.

At the time of the invention, it would have been obvious to include random one-time keys to be stored on smart cards. One of ordinary skill in the art would have been motivated to perform such an addition to increase security. This is taught by Chang in col. 2 lines 11-15.

As per claim 3, the one-time password taught by Chang in col. 2 lines 10-25 is a key used in a session. It is taught in Chang that this one time password/key is not transmitted to an authentication server, as it is only transmitted to an access server.

Claim 15 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 16 is rejected using the same basis of arguments used to reject claim 3 above.

12. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landry, Hohle, Barber, and Chang as applied above, and further in view of Brinkmeyer et al. US Patent No. 5,619,573 (hereinafter Brink).

As per claim 4, the Landry combination does not explicitly teach wherein the session key is a function of a previous key. However, this is taught by Brink, such as in col. 3 lines 60 to col. 4 line 25. This would be inherently known by an authentication server, as the authentication server needs to know the key in order to verify if it was valid or not.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to include using a previously known key. One of ordinary skill in the art would have been motivated to perform such an addition to create more security. As they are one way functions, it would be extremely difficult to determine the previous keys unless

they were known. By using previous keys, it would increase security, as it would almost guarantee that the key was actually known by the user and the authentication server, and not a malicious middle man.

Claim 17 is rejected using the same basis of arguments used to reject claim 14 above.

13. Claims 5-7 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landry, Hohle, Barber, Chang, and Brink as applied above, and further in view of Bruce Schneier's Applied Cryptography, 2nd Edition (1997), (hereinafter Schneier).

As per claims 5-7, the claims recite the use of encryption keys, decryption, one-way functions and authentication. These are well known in the art, as taught throughout Schneier, such as in pages 28-42. Pin codes are taught throughout Landry and Kia, and it would be obvious to encrypt PIN's, because PIN contains sensitive information, which should never be sent in the clear. Further, it is common practice that authentication is valid if PIN's match a PIN stored in a database. (that's how PIN's or passwords work). Further, databases holding security information is taught throughout Kia, such as in col. 2 lines 14-20 and in col. 3 lines 15-24 and col. 4 lines 29-37.

At the time of the invention, it would have been obvious to combine the teachings of Schneier with the Landry combination. One of ordinary skill in the art would have been motivated to perform such an addition to be able to provide a secure system. The

Landry combination is already directed to secure online transactions, and Schneier teaches the details of this.

Claim 18-20, as best understood by the Examiner, are rejected using the same basis of arguments used to reject claims 507 above.

14. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being obvious over the Landry combination as applied above.

As per claim 21, the claim recites wherein the smart card is powered by the voltage provided by the telephone line. It is well known in the art that telephones are powered by the power flowing from telephone lines. Since the Smart Card reader is attached to the telephone, as taught in Landry, it would have been obvious to power a smart card that is connected to the phone using the voltage provided by the phone, as this would reduce the amount of more power sources and voltage lines. Further, Landry teaches that the smart card may be powered by the telephone set, in col. 7 lines 50-54. As already discussed, many phones are powered by the telephone lines.

As per claim 22, it is inherent that a smart card would transmit signals via contacts. Although the Landry combination does not explicitly teach ISO contacts, it would have been obvious to do so, if not inherent. As Landry already teaches utilizing contacts, it would have been obvious to utilize ISO contacts, as ISO contacts are well known in the art and used throughout industry. It would have been obvious incorporate ISO contacts for ease of use.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. GEE whose telephone number is (571)272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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